

## SMARTer® Target RNA Capture for Illumina® Components

Catalog Nos.	Amount	Lot Number
635037 (Not sold separately; sold as a part of 635035)	12 rxns	Specified on product label.
635038 (Not sold separately; sold as a part of 635036)	48 rxns	Specified on product label.

### Description

SMARTer Target RNA Capture for Illumina Components are part of the SMARTer Target RNA Capture for Illumina kit, which is used to generate cDNA from enriched RNA transcripts. Target-specific biotinylated DNA probes designed by the user are hybridized to transcripts of interest and the resulting RNA-DNA hybrids are captured with Capture Beads. This kit takes advantage of the sensitivity of the SMART-Seq® v4 Ultra® Low Input RNA Kit for Sequencing to generate high-quality, full-length cDNA from these enriched transcripts. The kit was tested with 10 ng of total RNA, and has been shown to perform cDNA synthesis from enriched transcripts derived from as little as 100 pg of purified total RNA. cDNA libraries generated by this kit have been tested for compatibility with Illumina sequencing platforms. This method does not require additional rRNA removal methods or kits.

### Package Contents

#### Package 1:

<u>635037</u> (12 rxns)	<u>635038</u> (48 rxns)	
5 µl	5 µl	Control Total RNA (1 µg/µl)

#### Package 2:

<u>635037</u> (12 rxns)	<u>635038</u> (48 rxns)	
12 µl	48 µl	SMART-Seq v4 Oligonucleotide (48 µM)
12 µl	48 µl	PCR Primer II A (12 µM)
48 µl	192 µl	5X Ultra Low First-Strand Buffer
24 µl	96 µl	SMARTScribe™ Reverse Transcriptase (100 U/µl)
12 µl	48 µl	3' SMART-Seq CDS Primer II A (12 µM)
30 µl	120 µl	RNase Inhibitor (40 U/µl)
1 ml	3 x 1 ml	Nuclease-Free Water
12 µl	48 µl	10X Lysis Buffer
1.7 ml	6.8 ml	Elution Buffer (10 mM Tris-Cl, pH 8.5)
25 µl	100 µl	10X SSC
25 µl	100 µl	DMSO (100%)
200 µl	1 ml	GC-Melt
10 ml	30 ml	1X Wash Buffer
120 µl	480 µl	2X Capture Buffer
5 µl	5 µl	HPRT1 Control Probes (1 pmol/µl)

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# Certificate of Analysis

(SMARTer® Target RNA Capture for Illumina® Components)

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sold as part of 635035, 635036)

## Package 3:

<u>635037</u>	<u>635038</u>
(12 rxns)	(48 rxns)
250 µl	2 x 250 µl
Capture Beads (1%)	

## Storage Conditions

- Store Control Total RNA at  $-70^{\circ}\text{C}$ .
- Store 10X Lysis Buffer at  $-20^{\circ}\text{C}$ . Once thawed, store at  $4^{\circ}\text{C}$ .
- Store Elution Buffer, 10X SSC, 1X Wash Buffer, and DMSO at  $-20^{\circ}\text{C}$ . Once thawed, store at room temperature.
- Store Capture Beads at  $4^{\circ}\text{C}$ . Do not allow to freeze.
- Store all other reagents at  $-20^{\circ}\text{C}$ .
- At times, precipitate may be observed in the GC-Melt. This precipitate does not affect the performance of the kit. The precipitate can be dissolved rapidly by mixing at room temperature or warming at  $37^{\circ}\text{C}$  for a few minutes.

## Shelf Life

- 1 year from date of receipt under proper storage conditions.

## Shipping Conditions

- Capture Beads: Blue ice ( $4^{\circ}\text{C}$ )
- All other components: Dry ice ( $-70^{\circ}\text{C}$ )

## Product Documents

Documents for our products are available for download at [takarabio.com/manuals](http://takarabio.com/manuals)  
The following documents apply to this product:

- SMARTer Target RNA Capture for Illumina User Manual

## Quality Control Data

A sample kit from each lot was tested as follows: 10 ng of Control Total RNA was hybridized to 1 pmol biotinylated probes against HPRT1 as described in the SMARTer Target RNA Capture for Illumina User Manual. Following purification with an Agencourt AMPure XP kit (Beckman Coulter, Cat No. A63880 or A63881), the resulting hybridized complexes were captured on Capture Beads. The captured complexes were subjected to first-strand cDNA synthesis on the beads. The first-strand cDNA was then used as template in PCR for 20 cycles on the beads. PCR products were separated from the Capture Beads, purified with an Agencourt AMPure XP kit, and resuspended in 17 µl of Elution Buffer. 1 µl of the PCR product was analyzed with an Agilent Bioanalyzer and a High Sensitivity DNA Kit (Agilent, Cat No. 5067-4626). The resultant analysis indicated a single distinct cDNA peak in the size range of 1400 bp to 1650 bp. The regions from 1400 bp to 1650 bp (the peak) and from 400 bp to 10,000 bp (the entire range) were manually integrated. The peak represented at least 20% of the entire range. To calculate the total cDNA output, the concentration of the region from 400–10,000 bp, defined by Bioanalyzer software, was multiplied by 17 µl. Outputs ranged from 1.7–17 ng. No-RNA Control and No-Probe Control samples showed no distinct peak.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

## SMARTer® Target RNA Capture for Illumina® Components

### CATALOG NO.

635037, 635038

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### STATEMENT 275

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